# Hongyou Lu

1 Cyclotron Road MS 90R2002, Berkeley, CA 94720 · 650-804-6685 · <u>HYLu@lbl.gov</u>

#### **EDUCATION**

University of California, Berkeley (GPA: 3.8/4.0)

Berkeley, CA

Master of Public Policy, Goldman School of Public Policy

May 2015

Master of Science, Energy & Resources Group

*Thesis:* "Capturing the Invisible Resource: Analysis of Waste Heat Potential in Chinese Industry and Policy Options for Waste Heat Generation": Thermodynamic modeling and policy analysis of industrial waste heat utilization for cement, glass, and steel sectors

Stanford University Stanford, CA

Master of Arts in East Asian Studies (GPA: 3.5/4.0)

April 2008

Thesis: "Wireless Infrastructure Sharing in the Chinese Mobile Industry"

Peking University

Beijing, China

Bachelor of Arts in History (GPA: 3.6/4.0) and International Relations (GPA: 3.7/4.0) July 2006

Thesis: "John Foster Dulles' Views and Policies on China"

## **EMPLOYMENT**

Lawrence Berkeley National Laboratory (LBNL)

Berkeley, CA

U.S. Department of Energy National Laboratory, managed by University of California

Scientific Engineering Associate, Energy Technologies Area

Feb 2017 – present

Senior Research Associate, Environmental Energy and Technologies Division October 2010- Feb 2017

Research Associate, China Energy Group

April 2008-October 2010

- Analyzed waste heat potential in key energy-intensive industries in China.
- Conducted and facilitated industrial steam system assessments in Chinese facilities, including
  petrochemical facilities in Beijing, petrochemical and chemical facilities in Ningbo, and pulp and
  paper facilities in Suzhou.
- Conducted and facilitated industrial on process heating system assessments and best practices for process-heating systems in cement, steel, alumina in Guangzhou, Shandong, Zhengzhou, and Xi'an.
- Investigated best practices of international energy audit programs for industrial energy efficiency
- Developed and co-authored multiple versions of China Energy Databook and Key China Energy Statistics.

Milligan College, TN

Instructor (Faculty) of East Asian Studies and Engineering Program Associate Sept 2016 – Present Adjust Faculty and Program Development Associate for Engineering August 2015 – August 2016

- Provided technical assistance to hands-on senior design projects such as clean water projects.
- Developed the first Sustainability and Society course on campus.
- Developed accreditation report of new mechanical and electrical engineering majors for SACS COC.

## **AWARDS & FELLOWSHIPS**

Lawrence Berkeley National Laboratory Spot Award Recognition (December 2015)

## **TECHNICAL & LANGUAGE SKILLS**

- Qualified Specialist in the U.S. Department of Energy's Process Heating Assessment and Survey Tool.
- Advanced in U.S. Department of Energy's Steam System Modeler Tool.
- Advanced in thermal energy modeling, MATLAB, and STATA.
- Proficient in MS Access, Excel, Word, and PowerPoint; advanced in Photoshop and Adobe Illustrator.
- Fluent English and Mandarin, conversational Cantonese, and basic French.

# **PRESENTATIONS**

- 1. Presented "Decarbonizing China's Industry: Technologies, Policies, and Modeling Approaches" at the International Workshop on Modeling Mid-Century Low-Carbon Strategies, April 17-18, 2019, Beijing. China.
- 2. Presented at the Aspen Global Change Institute's workshop on "Technologies and Policies to Decarbonize the Industry Sector" on "Analysis of Waste Heat Potential in Chinese Industry" in Aspen, CO, November 11- 16, 2018.
- 3. Presented "Boiler Efficiency Solutions Case Studies" at the Boiler Steam System Tools and Efficiency Solutions Case Studies Training Workshop in Ningbo on July 16, 2016.
- 4. Presented "Capturing Invisible Resource: waste heat potential analysis" at the University of Science and Technology, Beijing in Beijing on September 5, 2016.
- 5. Presented "Capturing Invisible Resource: waste heat potential analysis and heat map development" at the *Waste Heat Recovery Workshop* in Beijing on September 7, 2016.
- 6. Presented "Capturing the Invisible Resource: Analysis of Waste Heat Potential in Chinese Industry and Policy Options for Waste Heat Generation" for the China Ministry of Industry and Information Technology (MIIT) Delegation to Lawrence Berkeley National Laboratory. Berkeley, CA. March 15.

### **PUBLICATIONS**

### Peer-Reviewed Journal Articles

- 1. Liu, X., B. Shen, L. Price, A. Hasanbeigi, **H.Y. Lu**, C. Yu, and G. Fu. 2019. "A Review of International Practices for Energy Efficiency and Carbon Emissions Reduction and Lessons Learned for China", *Wiley Interdisciplinary Reviews: Energy and Environment*. DOI: 10.1002/wene.342
- Zhou, N., L. Price, Yande, D., J. Cretys, N. Khanna, D. Fridley, H.Y. Lu, W. Feng, X. Liu, A. Hasanbeigi, Z. Tian, H. Yang, Q. Bai, Y. Zhu, H. Xiong, J. Zhang, K. Chrisman, J. Agenbroad, R. McIntosh, D. Mullaney, C. Stranger, E. Wanless, D. Wetzel, C. Yee, and E. Franconi. 2019. "A roadmap for China to peak carbon dioxide emissions and achieve a 20% share of non-fossil fuels in primary energy by 2030", *Applied Energy*, 793-819. https://doi.org/10.1016/j.apenergy.2019.01.154

- 3. Lin, J., D. Fridley, **H.Y. Lu**, L. Price, and N. Zhou. 2018. "Has Coal Use Peaked in China: Near-term trends in China's coal consumption", *Energy Policy*, 208-214. <a href="https://doi.org/10.1016/j.enpol.2018.08.058">https://doi.org/10.1016/j.enpol.2018.08.058</a>
- 4. Zhang, Q., J. Xu, Y. Wang, A. Hasanbeigi, W. Zhang, **H.Y. Lu**, M. Arens. 2017. "Comprehensive assessment of energy conservation and CO2 emissions mitigation in China's iron and steel industry based on dynamic material flows", *Applied Energy*, 209, 251-265. http://dx.doi.org/10.1016/j.apenergy.2017.10.084
- 5. Shen, B., Y. Han, L. Price, **H.Y. Lu**, and M. Liu. 2017. "Techno-economic evaluation of strategies for addressing energy and environmental challenges of industrial boilers in China", *Energy*, Volume 118. <a href="http://dx.doi.org/10.1016/j.energy.2016.10.083">http://dx.doi.org/10.1016/j.energy.2016.10.083</a>
- 6. Zhang, Q., X. Zhao, **H.Y. Lu,** T. Ni, and Y. Li. 2017. "Waste energy recovery and energy efficiency improvement in China's iron and steel industry", *Applied Energy*, Volume 191. http://dx.doi.org/10.1016/j.apenergy.2017.01.072
- 7. **Lu, H.Y.**, L. Price, Q. Zhang. 2015. "Capturing the Invisible Resource: Analysis of Waste Heat Potential in Chinese Industry", *Applied Energy*, Volume 161. doi:10.1016/j.apenergy.2015.10.060.
- 8. Lewis, J., D. Fridley, L. Price, **H.Y. Lu**, and J. Romankiewicz. 2015. "Understanding China's non-fossil energy targets", *Science*, November 27. <a href="http://science.sciencemag.org/content/350/6264/1034">http://science.sciencemag.org/content/350/6264/1034</a>
- 9. Shen, B., F. Dai, L. Price, and **H.Y. Lu**. 2014. "California's Cap-and-Trade Program and Insights for China's Pilots," *Energy and Environment*, Volume 25 (3 & 4): 551-575.
- Lu, H.Y. and Y. Zhou. 2013. "Direct Allocation of Emission Allowances for Industrial Sectors -Experience from California's Cap-and-Trade Program." (in Chinese). *Journal of Science and Management* (ISSN 1003-8256). Vol 5.
- Lu, H.Y. and Y. Zhou. 2013. "Establishment of California Carbon Emission Trading Market and Recommendations for China." (in Chinese). *Journal of Science and Management* (ISSN 1003-8256). Vol 4.
- 12. Hasanbeigi, A., A. Lobscheid, **H. Y. Lu**, L. Price, and Y. Dai. 2013. "Quantifying the Co-benefits of Energy-Efficiency Programs: A Case-study for the Cement Industry in Shandong Province, China," *Science of the Total Environment*, Volumes 458–460: 624-636.
- 13. Price, L., N. Zhou, D. Fridley, S. Ohshita, **H.Y. Lu**, N. Zheng, C. Fino-Chen. 2013. "Development of a Low-Carbon Indicator System for China," *Habitat International*, Volume 37: 4-21.
- 14. Hasanbeigi, A., L. Price, C. Fino-Chen, **H.Y. Lu**, J. Ke. 2013. "Retrospective and Prospective Decomposition Analysis of Chinese Manufacturing Energy Use and Policy Implications." *Energy Policy*, Volume 63: 562–574.

- 15. Shen, B., L. Price, and **H.Y. Lu**. 2012. "Energy Audit Practices in China: National and Local Experiences and Issues," *Energy Policy* Volume 46 (2012): 346-358.
- Price, L., M.D. Levine, L. Price, N. Zhou, D. Fridley, N. Aden, H.Y. Lu, M. McNeil, N. Zheng, Y. Qin, P. Yowargana. 2011. "Assessment of China's Energy-Saving and Emission-Reduction Accomplishments and Opportunities During the 11th Five-Year Plan," *Energy Policy* Volume 39(4): 2165-2178.
- 17. Hasanbeigi, A., L. Price, **H.Y. Lu**, L. Wang. 2010. "Analysis of Energy-Efficiency Opportunities for the Cement Industry in Shandong Province, China: A Case-Study of Sixteen Cement Plants," *Energy* Volume 35: 3461-3473.

### Peer-Reviewed Conference Proceedings

- 1. Feng, W., **H.Y. Lu**, L. Xu, N. Zhou, L. Sherlock, J. Hou, and X. Wang. 2019. "Building energy efficiency policy in Chinese cities and comparison with international cities", *Proceedings of the 2019 European Council for An Energy-Efficient Economy*. Hyeres, France, June 3 8, 2019.
- 2. Liu, X., J. Lin, **H.Y. Lu**, J. Cai. 2018. "A provincial analysis of economic transition and energy consumption in China", *Proceedings of the 6th International Association for Energy Economics (IAEE) Asian Conference*. Wuhan, China. November 2 4, 2018
- 3. Price, L. N. Khanna, N. Zhou, D. Fridley, A. Hasanbeigi, **H. Y. Lu**, W. Feng, Y. Dai, Z. Tan, H. Yang, Q. Bai, Y. Zhu, H. Xiong, J. Zhang, J. Creyts, K. Chrisman, E. Franconi, J. Agenbroad, M. Bendewald, Y. Ke, R. McIntosh, D. Mullaney, C. Stranger, D. Wetzel, and C. Yee. 2017. "Reinventing fire: China the role of energy efficiency in China's roadmap to 2050," *Proceedings of the 2017 European Council for An Energy-Efficient Economy's Summer Study*. Hyeres, France, May 29 June 3, 2017.
- 4. **Lu, H.Y.**, L. Price, A. Thekdi, S. Nimbalkar, M. DeGroot, and J. Shi. 2014. "Conducting Process Heating Energy Efficiency Assessments in Chinese Industrial Plants Case Studies based on Assessments Conducted at Two Steel Plants," *Proceedings of the 2014 European Council for An Energy-Efficient Economy's Industrial Summer Study*. Arnhem, The Netherlands, June 2-5, 2014.
- 5. Shen, B., **H.Y. Lu**, and L. Price. 2014. "U.S. Experience Addressing Energy and Environmental Challenges of Industrial Boiler Systems: Insights for China", *Conference proceedings of 2014 CCEEE Fall Study on Industrial Energy Efficiency*, Beijing, China. October 24 October 26, 2014.
- Hasanbeigi, A., A. Lobscheid, H.Y. Lu, L. Price, and Y. Dai. 2014. "Including the Co-benefits of Energy-Efficiency Programs and Projects in Cost-Benefit Analysis - A Case Study for the Cement Industry." *Proceedings of the International Conference on Clean Energy*. June 8-12, 2014. Istanbul, Turkey.
- 7. Price, L., N. Zhou, D. Fridley, **H.Y. Lu**, L. Hong, C. Fino-Chen, J. Ke, S. Ohshita, M. Hu, Y. Zhou, S. Hammer, and X. Hu. 2014. "Energy-Efficiency and Greenhouse Gas Mitigation Policy Options:

- Assisting Chinese Cities in Prioritizing and Choosing Strategies to Implement to Become a Sustainable Community," *Proceedings of the American Council for An Energy-Efficient Economy 2014 Summer Study on Energy Efficiency*. Washington DC: ACEEE.
- 8. Price, L., N. Zhou, D. Fridley, **H.Y. Lu**, L. Hong, C. Fino-Chen, S. Ohshita, M. Hu, and Y. Zhou. 2014. "Energy-Efficiency and Greenhouse Gas Mitigation Policy Options: How Does a City Prioritize and Choose Which Strategies to Implement to Become a Resilient, Sustainable Community?" *Conference proceedings of 2014 ACEEE Summer Study on Energy Efficiency in Buildings*. Pacific Grove, CA. August 17 August 22.
- 9. Price, L., A. Hasanbeigi, H. Xiong, G. Fu, E. Wanless, L. Hong, **H.Y**. **Lu**, R. McIntosh, and P. He. 2014. "Envisioning China's Energy-Efficient and Low-Carbon Industrial Sector in 2050: Reinventing Fire Pathway Vision and Methodology," *Proceedings of the China Council for an Energy-Efficient Economy 2014 Fall Study on Industrial Energy Efficiency and Regional Haze*. Beijing, China.
- 10. Shen, B., L. Price, E. Meredydd, Y. Sha, and **H.Y. Lu**. 2014. "Unleashing Energy Efficiency Retrofits Through Energy Performance Contracts in China", Conference proceedings of 2014 CCEEE Fall Study on Industrial Energy Efficiency, Beijing, China. October 24 October 26, 2014.
- 11. Hasanbeigi, A., L. Price, **H.Y. Lu**, C. Fino-Chen, and J. Ke. 2013. "Retrospective and Prospective Decomposition Analysis of Chinese Manufacturing Energy Use and Policy Implications for Industry Structural Change." *Proceedings of the International Conference on Frontier Issues in Economics and Management*. Beijing University of Chemical Technology. July 3-4, 2013.
- 12. Hasanbeigi, A., L. Price, **H.Y. Lu**, C. Fino-Chen, and J. Ke. 2013. "What Shaped the Chinese Manufacturing Energy Use Since 1995 and What's the Prediction for the Future?" *Proceedings of the 2013 American Council for An Energy Efficiency Economy Industrial Summer Study*. Washington DC: ACEEE.
- 13. **Lu, H.Y.** and L. Price. 2012. "China's Industrial Carbon Dioxide Emissions in Manufacturing Subsectors and in Selected Provinces," *Proceedings of the 2012 European Council for An Energy-Efficient Economy's Industrial Summer Study*. Arnhem, The Netherlands, September 11-14, 2012.
- 14. Price, L., N. Zhou, D. Fridley, S. Ohshita, **H.Y. Lu**, N. Zheng, and C. Fino-Chen. 2012. "Development of an End-Use Sector-Based Low-Carbon Indicator System for Cities in China," *Proceedings of the American Council for an Energy-Efficient Economy's 2012 Summer Study on Energy Efficiency in Buildings*. Washington, DC: ACEEE.
- 15. Hasanbeigi, A., L. Price, **H.Y. Lu**, and C. Williams. 2012. "International Best Practices in Pretreatment and Co-processing of Municipal Solid Waste and Sewage Sludge in the Cement Industry." *Proceedings of the 2012 ECEEE Summer Study on Energy Efficiency in Industry*. September 11-14, 2012. Arnhem, the Netherlands.

- 16. Hasanbeigi, A., L. Price, **H.Y. Lu**, and C. Williams. 2012. "Co-processing of Municipal Solid Waste and Sewage Sludge in the Cement Industry." *The 3rd ISIE Asia-Pacific Meeting*, October 20-21 2012. Beijing, China.
- 17. Romankiewicz, J., B. Shen, L. Price, and **H.Y. Lu**. 2012. "Addressing the effectiveness of industrial energy efficiency incentives in overcoming investment barriers in China," *Proceedings of the European Council for an Energy-Efficient Economy's* 2012 Summer Study. No. 6-156-12. Stockholm: ECEEE.
- 18. Price, L., and **H.Y. Lu**. 2011. "Industrial Energy Auditing and Assessments: A Survey of Programs Around the World," Proceeding of at the 2011 European Council for An Energy-Efficient Economy's Summer Study on Energy-Efficiency. June 6-11, 2011, France.
- 19. Lu, H.Y. and L. Price. 2011. "Industrial Energy Assessments: A Survey of Programs Around the World," *Proceedings of the 2011 American Council for An Energy-Efficient Economy's Summer Study on Energy-Efficiency in Industry*. July 26-29, 2011, Niagara Falls, New York.
- 20. Lu, H.Y., E. Masanet, and L. Price. 2009. "Evaluation of Life-Cycle Assessment Studies of Chinese Cement Production: Challenges and Opportunities," *Proceedings of the American Council for An Energy-Efficient Economy's 2009 Summery Study on Energy Efficiency in Industry*. July 26-29 (LBNL-2335E). Washington, D.C.: American Council for An Energy-Efficient Economy.

### Peer-Reviewed Chapters/Articles in Books

 Ohshita, S.B., N. Zhou, L. Price, D. Fridley, N. Zheng Kanna, LX. Hong, H.Y. Lu, C. Fino-Chen, and G. He. 2015. "Low Carbon Development for Cities: Methods and Measures." Chapter in Vol. 6 'Sustainability of Energy Systems' in the *Handbook of Clean Energy Systems*. JY Yan, ed. Wiley: London. <a href="http://onlinelibrary.wiley.com/book/10.1002/9781118991978">http://onlinelibrary.wiley.com/book/10.1002/9781118991978</a>

### LBNL Reports

- 1. Fridley, D. **H. Y. Lu**, J. Lin, and L. Price. 2018. "Near-Term Trends in China's Coal Consumption". Lawrence Berkeley National Laboratory (LBNL-2001145). Berkeley, CA.
- 2. Fridley, D. **H. Y. Lu**, N. Khanna, X, Liu, and A. Zhu. 2017. *China Energy Databook, Version 9*. Lawrence Berkeley National Laboratory, Berkeley, California.
- 3. Fridley, D. **H. Y. Lu**, and X, Liu. 2017. *Key China Energy Statistics 2016*. Lawrence Berkeley National Laboratory, Berkeley, California. <a href="https://china.lbl.gov/sites/default/files/ced-9-2017-final.pdf">https://china.lbl.gov/sites/default/files/ced-9-2017-final.pdf</a>
- 4. Liu, X. B. Shen, L. Price, **H.Y. Lu**, and A. Hasanbeigi. 2016. What China can learn from international policy experiences to improve industrial energy efficiency and reduce CO<sub>2</sub> emissions? November. Lawrence Berkeley National Laboratory (LBNL-1006470). Berkeley, CA.

- Lu, H.Y. 2015. Capturing the Invisible Resource: Analysis of Waste Heat Potential in Chinese Industry and Policy Options for Waste heat to Power Generation. Lawrence Berkeley National Laboratory (Report Number: LBNL-179618). Berkeley, California. <a href="https://china.lbl.gov/publications/capturing-invisible-resource-analysis">https://china.lbl.gov/publications/capturing-invisible-resource-analysis</a>
- 6. Shen, B., **H.Y. Lu**, L. Price, X. Liu, and K. Tsen. 2015. *Curbing Air Pollution and Greenhouse Gas Emissions from Industrial Boilers in China: An Analysis and Implementation Roadmap for Improving Energy Efficiency and Fuel Switching with Case Studies in Ningbo and Xi'an*. Lawrence Berkeley National Laboratory (LBNL-1003860). Berkeley, CA. <a href="https://china.lbl.gov/publications/curbing-air-pollution-and-greenhouse">https://china.lbl.gov/publications/curbing-air-pollution-and-greenhouse</a>
- 7. Shen, B., **H.Y. Lu**, and L. Price. 2015. *U.S. Experiences in Tackling Energy and Environmental Challenges of Boiler System*. May. Lawrence Berkeley National Laboratory (LBNL-1004067). Berkeley, CA. http://eetd.lbl.gov/sites/all/files/us\_experiences\_in\_boiler\_en\_final.pdf
- 8. Shen, B., F. Dai, and **H.Y. Lu.** 2014. Energy Efficiency Governance: International Experience in Administering and Implementing Energy Efficiency Policies and Programs. Lawrence Berkeley National Laboratory.
- 9. Fridley, D., M. Levine, **H.Y. Lu**, and C. Fino-Chen. 2014. *Key China Energy Statistics 2014*. Lawrence Berkeley National Laboratory. Berkeley, California. <a href="http://eetd.lbl.gov/publications/key-china-energy-statistics-2014">http://eetd.lbl.gov/publications/key-china-energy-statistics-2014</a>
- 10. Shen, B., **H.Y. Lu**, L. Price, J. K. Li, C. Williams, and A. Dougherty. 2013. *Carrots for Energy Efficiency: International Experiences in Design and Implementation of Incentive Programs for Stimulating Energy Efficiency Improvement*. Berkeley, CA: Lawrence Berkeley National Laboratory.
- 11. Hasanbeigi, A., L. Price, C. Fino-Chen, **H.Y. Lu**, and J. Ke, 2013. *Retrospective and Prospective Decomposition Analysis of Chinese Manufacturing Energy Use, 1995-2020.* Lawrence Berkeley National Laboratory. Berkeley, CA (LBNL-6028E).
- 12. Fridley, D. J. Romankiewicz, C. C. Fino-Chen, L. Hong, and **H. Y. Lu**. 2013. *China Energy Databook, Version 8*. Lawrence Berkeley National Laboratory, Berkeley, California.
- 13. Levine, M., D. Fridley, **H.Y. Lu**, and C. Fino-Chen. 2012. *Key China Energy Statistics* 2012. Berkeley, CA: Lawrence Berkeley National Laboratory (LBNL-5570E-Flyer).
- 14. Hasanbeigi, A., A. Lobscheid, Y. Dai, L. Price, and **H.Y. Lu**. 2012. *Quantifying the Co-benefits of Energy-Efficiency Programs: A Case-Study for the Cement Industry in Shandong Province, China*. Berkeley, CA: Lawrence Berkeley National Laboratory (LBNL-5949E).

- 15. Hasanbeigi, A., **H.Y. Lu**, and L. Price. 2012. *International Best Practices for Pre-processing and Co-processing of Municipal Solid Waste and Sewage Sludge in the Cement Industry*. Berkeley, CA: Lawrence Berkeley National Laboratory (LBNL-5581E).
- 16. Levine, M., D. Fridley, **H.Y. Lu**, and C. Fino-Chen. 2011. *Key China Energy Statistics* 2011. Berkeley, CA: Lawrence Berkeley National Laboratory (LBNL-5569E-Flyer).
- 17. Price, L., N. Zhou, D. Fridley, S. Ohshita, **H.Y. Lu**, N. Zheng, and Fino-Chen, C. 2011. *Development of a Low-Carbon Indicator System for China*. Berkeley, CA: Lawrence Berkeley National Laboratory (LBNL-5243E).
- 18. Shen, B., L. Price, and **H.Y. Lu**. 2010. *Energy Audit Practices in China: National and Local Experiences and Issues*. Berkeley, CA: Lawrence Berkeley National Laboratory (LBNL-4159E).
- 19. Price, L., S. de la Rue du Can, **H.Y. Lu**, and A. Horvath. 2010. Evaluation of Energy Efficiency Activities in the Industrial Sector Undertaken in Response to Greenhouse Gas Emission Reduction Targets. Berkeley, CA: Lawrence Berkeley National Laboratory (LBNL-3551E).
- Levine, M.D., L. Price, N. Zhou, D. Fridley, N. Aden, H.Y. Lu, M. McNeil, N. Zheng, Y. Qin, and P. Yowargana. 2010. Assessment of China's Energy-Saving and Emission-Reduction Accomplishments and Opportunities During the 11th Five-Year Plan. Berkeley, CA: Lawrence Berkeley National Laboratory (LBNL-3385E).
- 21. Aden, N. and **H.Y. Lu**. 2010. *Key China Energy Statistics 2010*. Berkeley, CA: Lawrence Berkeley National Laboratory.
- 22. Price, L., A. Hasanbeigi, **H.Y. Lu**, and Wang, L., 2009. *Analysis of Energy-Efficiency Opportunities for the Cement Industry in Shandong Province, China*. Berkeley, CA: Lawrence Berkeley National Laboratory (LBNL-2751E-Rev).
- 23. Fridley, D., N. Aden, **H.Y. Lu**, and N. Zheng. 2008. *China Energy Databook, Version 7*. Lawrence Berkeley National Laboratory, Berkeley, California (LBNL-1135E).

#### Other Reports

- 1. Feng, W., N. Zhou, **H. Y. Lu**, X. Liu, J. Ge, J. Hou, X. Wang, L. Sherlock, A. Armstrong, G. Joly. 2018. *Constructing a new, low carbon future How Chinese cities are scaling ambitious building energy efficiency solutions.* C40 China Buildings Programme: Launch Report.
- 2. van Sambeek, E., Yowargana, P., Liu, S., Jiang, K., Price, L., Zhou, N, and **Lu, H.Y.** 2012. *Policy Options for Encouraging Energy Efficiency Best Practices in Shandong Province's Cement Industry: Exploring Designs Options for a Sectoral Approach*. Beijing: Azure International.